

Title (en)
THERMALLY STABLE MULTILAYER MIRROR FOR THE EUV SPECTRAL REGION

Title (de)
THERMISCH STABILER MULTILAYER-SPIEGEL FÜR DEN EUV-SPEKTRALBEREICH

Title (fr)
MIROIR MULTICOUCHE THERMOSTABLE POUR LA ZONE SPECTRALE DE L'ULTRAVIOLET EXTREME

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Application
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Abstract (en)
[origin: WO2006066563A1] The invention relates to a multilayer mirror (1) for reflecting EUV radiation, which contains a number of alternating molybdenum layers (4) and silicon layers (3). According to the invention, a barrier layer (5) is placed on a number of boundary surfaces between the molybdenum layers (4) and the silicon layers (3) and contains a silicon nitride or a silicon boride. A high thermal stability, particularly a high long-time stability at temperatures of greater than 3,000 °C with a simultaneously high degree of reflection of the multilayer mirror is achieved by the barrier layers (5) made of a silicon nitride or a silicon boride. A multilayer mirror (1) of the aforementioned type can be used, in particular, as a heatable collector mirror of an EUV radiation source.

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Citation (examination)
• WO 2005091887 A2 20051006 - CYMER INC [US], et al
• WO 2004092693 A2 20041028 - CYMER INC [US], et al
• WO 2004053540 A1 20040624 - ZEISS CARL SMT AG [DE], et al

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